UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--------------------------------------|------------------------------------|-----------------------|---------------------|------------------|
| 10/563,514 | 04/27/2006 | William Wesley Martin | UDL36.003APC | 8646 |
| | 7590 07/02/200 RTENS OLSON & BE | EXAMINER | | |
| 2040 MAIN ST | REET | LE, DAVID D | | |
| FOURTEENTH FLOOR IRVINE, CA 92614 | | | ART UNIT | PAPER NUMBER |
| | | | 3681 | |
| | | | | |
| | | | NOTIFICATION DATE | DELIVERY MODE |
| | | | 07/02/2008 | ELECTRONIC |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

jcartee@kmob.com eOAPilot@kmob.com

| | Application No. | Applicant(s) | | | |
|--|---|---|--|--|--|
| | 10/563,514 | MARTIN, WILLIAM WESLEY | | | |
| Office Action Summary | Examiner | Art Unit | | | |
| | David D. Le | 3681 | | | |
| The MAILING DATE of this communication app Period for Reply | ears on the cover sheet with the c | orrespondence address | | | |
| A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period v - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tim vill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE | lely filed the mailing date of this communication. (35 U.S.C. § 133). | | | |
| Status | | | | | |
| Responsive to communication(s) filed on <u>27 A</u> This action is FINAL . 2b) ☑ This Since this application is in condition for allowar closed in accordance with the practice under E | action is non-final. nce except for formal matters, pro | | | | |
| Disposition of Claims | | | | | |
| 4) Claim(s) 1-31 is/are pending in the application. 4a) Of the above claim(s) is/are withdraw 5) Claim(s) is/are allowed. 6) Claim(s) 1-31 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or Application Papers 9) The specification is objected to by the Examine 10) The drawing(s) filed on 05 January 2006 is/are: Applicant may not request that any objection to the ob | vn from consideration. r election requirement. r. a)⊠ accepted or b)⊡ objected drawing(s) be held in abeyance. See | e 37 CFR 1.85(a). | | | |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. | | | | | |
| Priority under 35 U.S.C. § 119 | | | | | |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. | | | | | |
| Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 04/27/06. | 4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other: | ite | | | |

Art Unit: 3681

DETAILED ACTION

1. This is the first Office action on the merits of Application No. 10/563,514, filed on 27 April 2006. Claims 1-31 are pending.

Documents

- 2. The following documents have been received and filed as part of the patent application:
 - Copies of Foreign Priority Documents, received on 01/05/06
 - Declaration and Power of Attorney, received on 04/27/06
 - Information Disclosure Statement, received on 04/27/06

Information Disclosure Statement

3. The information disclosure statement filed on 27 April 2006 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document. A legible copy of reference DE 198 35 334A has not been submitted; and therefore, its content referred to therein has not been considered.

Specification

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the

Art Unit: 3681

computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

5. The abstract of the disclosure is objected to because it contains legal phraseology, "means". Correction is required. See MPEP § 1826.

Claim Rejections - 35 USC § 112

- 6. The following is a quotation of the second paragraph of 35 U.S.C. 112:
 - The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 7. Claims 1-21 and 23-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1:

• Lines 6-7 recite the limitation "a known relationship between the gear ratios". It is unclear what known relationship between the gear ratios that the claim is referring to.

Art Unit: 3681

Claim 3:

• Line 2 recites the limitation "the rate of change of torque". There is insufficient

antecedent basis for this limitation in the claim.

Claim 5:

• Lines 2-3 recite the limitation "the speed of a drive source". There is insufficient

antecedent basis for this limitation in the claim.

Claim 6:

• Line 2 recites the limitation "the magnitude of torque". There is insufficient

antecedent basis for this limitation in the claim.

Claim 8:

• Line 2 recites the limitation "the position". There is insufficient antecedent basis

for this limitation in the claim.

Claim 10:

• Line 2 recites the limitation "the difference". There is insufficient antecedent

basis for this limitation in the claim.

Art Unit: 3681

Claim 12:

• Line 2 recites the limitation "the amount of torsional deformation". There is

insufficient antecedent basis for this limitation in the claim.

Claim 13:

• Line 2 recites the limitation "the direction of torque". There is insufficient

antecedent basis for this limitation in the claim.

Claim 17:

• Line 2 recites the limitation "the amount of strain in the component". There is

insufficient antecedent basis for this limitation in the claim.

Claim 19:

• Line 6 recites the limitation "a known relationship between the gear ratios". It is

unclear what known relationship between the gear ratios that the claim is referring

to.

Claim 20:

• Line 2 recites the limitation "the rate of change of torque". There is insufficient

antecedent basis for this limitation in the claim.

Art Unit: 3681

Claim 21:

• Line 2 recites the limitation "the amount of torque". There is insufficient

antecedent basis for this limitation in the claim.

Claim 23:

• Lines 7-8 recite the limitation "a known relationship between the gear ratios". It

is unclear what known relationship between the gear ratios that the claim is

referring to.

Claim 24:

• Claims 24 is dependent upon itself; and therefore, the scopes of claims 24 as well

as claims 25-31, which are dependent upon claim 24, have not been considered.

Claim 25:

• Line 1 recites the limitation "the rate of change of torque". There is insufficient

antecedent basis for this limitation in the claim.

Claim 26:

• Line 2 recites the limitation "the speed of a drive source". There is insufficient

antecedent basis for this limitation in the claim.

Art Unit: 3681

Claim 29:

• Line 2 recites the limitation "the amount of torsional deformation". There is insufficient antecedent basis for this limitation in the claim.

Claim 30:

• Lines 1-2 recite the limitation "the direction of torque". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-23, <u>as best understood</u>, are rejected under 35 U.S.C. 102(b) as being anticipated by U. S. Patent No. 5,767,420 to De Schepper et al. (hereinafter referred to as De Schepper).

Claims 1-23:

De Schepper (i.e., Figs. 1-16; column 1, line 36 – column 7, line 36) discloses a torque detecting device comprising:

- A transmission (i.e., Fig. 10);
- A plurality of gear ratios (i.e., Fig. 11);

Application/Control Number: 10/563,514

Art Unit: 3681

 Selector means (i.e., Figs. 10 and 11, being the clutches and brakes) for selectively engaging the gear ratios;

A control system (i.e., Fig. 1) including means for measuring deformation (i.e., Fig. 1, element 3) caused by torque in the transmission that is deformed due to torque (i.e., column 2, line 45 - column 4, line 18);

Page 8

- Means for controlling the torque (i.e., Fig. 1, element 50) in the transmission;
- Wherein the control system is arranged to measure deformation and to adjust the torque in the transmission according to the measured deformation and the gear ratios (i.e., column 2, line 45 column 7, line 36);
- Wherein the means for controlling torque in the transmission includes a clutch means (i.e., Fig. 1);
- Wherein the means for controlling torque in the transmission includes means for controlling a speed of a drive source (i.e., column 2, line 45 column 7, line 36);
- Wherein the control system includes means for calculating the magnitude of torque in the transmission system (i.e., column 2, line 45 column 7, line 36);
- Wherein the control system includes estimating means for estimating torque in the transmission when the selector means engages an unengaged gear ratio (i.e., column 2, line 45 – column 7, line 36);
- Sensor means (i.e., Fig. 1, element 4) for sensing a position of the selector means; and
- Wherein the control system includes at least one means for measuring engine speed (i.e., column 6, lines 49-55).

Art Unit: 3681

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Otto et al. (U. S. Patent No. 6,986,289) teaches a torque-detecting arrangement, as shown in Fig. 1.
- Okada et al. (U. S. Patent Application Publication No. US 2003/0171186 A1) teaches a
 method and system for controlling creep in automatic transmission having a means for
 measuring deformation caused by torque.
- Chang et al. (U. S. Patent No. 6,505,504) teaches a method and device for a real time measurement of output torque of an automobile engine, as shown in Fig. 1.
- Obayashi et al. (U. S. Patent No. 4,592,241) teaches a torque detector, as shown in Fig. 1.
- 11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Le whose telephone number is 571-272-7092. The examiner can normally be reached on Mon-Fri (0900-1730).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3681

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David D. Le/ Primary Examiner, Art Unit 3681 06/27/2008

ddl